Bosch Coach Solutions

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BOSCH
Invented for life

Bosch Coach Solutions

Infotainment and functionality on tour

Bosch Car Multimedia stands for product innovations in the field of mobile communications in professional system solutions. Years of experience and employees who think ahead make us the market leader for professional systems in commercial vehicle equipment today. Bosch multimedia and infotainment systems offer the highest level of integration and flexibility while providing an optimal combination of convenience, entertainment and safety at the same time – individualized to meet all customer-specific needs.

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Coach Audio
Modular and multifunctional

The sophisticated audio systems from Bosch feature the latest technology and user-friendly solutions. Experience information and entertainment from a single source – convenience for the driver and the passengers. Bosch coach audio systems are solutions that have been specially designed for coaches and combine innovation with extensive user friendliness. Perfectly designed multimedia systems with high-performance infotainment systems, robust radios, functional microphones and flexibly usable seat modules provide passengers and drivers with maximum information and entertainment. At the same time, Bosch coach audio systems set new standards in terms of technology, design and integration into any coach interior.

Professional Line 3

The Professional Line 3 is the high-end coach infotainment system from Bosch. The Coach Cabin Selector (CCS) Professional head unit is the heart and soul of the system for trouble-free control of all the connected audio, video and navigation components. The concept of separate sound zones for the CCS Professional enables access to many different media sources, either simultaneously or separately, for the driver and passenger areas. The innovative entertainment solution for professional use in coaches – fully integrated and connected.

Coach Cabin Selector Professional

The CCS Professional offers a multitude of different connection options for a convenient multimedia experience, including three microphone inputs, USB and AUX-IN, a number of different connections for other external sources and an integrated DVD drive, which can be easily operated using the remote control unit included in delivery.

Other features:

- ▶ Display: Night Design in green or red
- ▶ CD/DVD drive with 8x oversampling
  - – Available regional codes: RC1, RC2, RC4, RC5
  - – Formats: DVD±R (not DL), DVD±RW (not DL), DVD-MP3/WMA, SVCD, VCD, JPEG, audio CD (CCDA), CD-R, CD-RW, MP3-/WMA-CD
- ▶ Radio: FM, SW, AM/MW, LW, WB
- ▶ USB slot
- ▶ Bluetooth telephony
- ▶ Connectivity/CE connectivity
- ▶ CAN connectivity
- ▶ Class-D output stage with 80 watts and 200 watts
- ▶ Operating button with manual on/off for passenger monitors
- ▶ Integrated video switch and connection option for an external video source
- ▶ Control of the DVB T tuner in the Professional Line 3
- ▶ Separate tone settings for driver and passengers
- ▶ MAP: Display of navigation map on passenger monitors
- ▶ CAM: Display of the camera pictures on the driver monitor Switching between four optionally connected cameras possible
- ▶ NAV: Display of navigation on the 7" cockpit display or Videobox monitor
- ▶ Three microphone inputs with priority switching for the driver microphone
- ▶ Integrated IR receiver
- ▶ MAS output for DVD changer and other external sources

CCS Professional Premium

Optional for the CCS Professional Premium:

- ▶ Door monitoring function through display of camera pictures on the 7" cockpit display or the Videobox monitor

Technical features:

- ▶ Tuner frequency ranges (depending on region):
  - – FM: 87.5 to 108.0 MHz
  - – SW: 5,800 to 6,300 kHz
  - – AM/MW: 530.0 to 1,710.0 kHz
  - – LW: 153.0 to 279.0 kHz
  - – WB: 162.40 to 162.55 MHz
- ▶ Operating voltage: 12 V via CPA
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Format: 1 DIN
- ▶ Weight: 1,000 g
- ▶ Certification standards: CE, E1, FCC, RoHS, WEEE

Professional Line 3

Coach Cabin Display Professional

The Coach Cabin Display (CCD) Professional is the information and display medium of the Professional Line 3. The display shows the selected audio and video components with the corresponding menus and functions for the driver and passenger areas.

Other features:

- ▶ Display: Night Design in green or red
- ▶ CD drive with 8x oversampling
  Formats: Audio CD (CCDA), CD-R, CD-RW, MP3/WMA CD
- ▶ Radio: FM, SW, AM/MW, LW, WB
  - – 36 station presets on 6 storage levels
  - – Digital signal processing (DigiCeiver)
  - – Optimized digital channel separation (SHARX®)
  - – Travelstore and Traffic Announcement

Optional for the CCD Professional Bluetooth:

- ▶ Bluetooth telephony
- ▶ Automatic synchronization of contacts and call lists
- ▶ Private mode via CDM 08 GSM driver microphone

- ▶ Tuner frequency ranges (depending on region):
  - – FM: 87.5 to 108.0 MHz
  - – SW: 5,800 to 6,300 kHz
  - – AM/MW: 530.0 to 1,710.0 kHz
  - – WB: 162.40 to 162.55 MHz

- ▶ Operating voltage: 12 V via CPA
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Format: 1 DIN
- ▶ Weight: 1,300 g
- ▶ Standards: CE, E1, FCC, RoHS

Coach Power Amplifier CPA 811

The CPA 811 amplifier is convincing with its high signal strength in transmission and amplification of audio and video signals. The CPA 811 is integrated into the Professional Line 3 multimedia system via a CAN connection.

Other features:

- ▶ Two separate output stages, each with 2 x 20 watts for the driver and the passenger cabin
- ▶ Central power supply for all system components
- ▶ Trouble-free telephone use due to automatic muting of all other sound sources when a call comes in
- ▶ Connection option for other external sources via 12 V

- ▶ Operating voltage: 24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 170 x 50 x 214.2 mm
- ▶ Weight: 1,800 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Coach Power Amplifier CPA 2011

Thanks to its top-class specifications (just like its little brother, the CPA 811), the Class-D Coach Amplifier CPA 2011 provides the basis for perfect sound and picture reproduction in the Professional Line 3. With its three output stages, the CPA 2011 is also ideally suited to installation in double-decker coaches.

Additional features to those of the CPA 811:

- ▶ Three separate output stages with 2 x 20 watts of power for the driver area and 4 x 40 watts of power for the passenger cabin
- ▶ Line-out to connect an additional amplifier in a cascaded system

Coach Radio

Coach DVD Radio CAD 12

The CAD12 was developed as an integrated multimedia system and offers a maximum number of connection options as well as many other extensive functions.
In spite of its very compact size, both the driver and the passengers can take advantage of radio, CD, MP3, DVD, USB and AUX-IN.

- ▶ Tuner frequency ranges (depending on region):
  - – FM: 87.5 to 108.0 MHz
  - – SW: 5,800 to 6,300 kHz
  - – AM/MW: 530.0 to 1,710.0 kHz
  - – LW: 153.0 to 279.0 kHz
  - – WB: 162.40 to 162.55 MHz

Other features:

- ▶ Display color: red
- ▶ Integrated amplifier with 2 x 20 watts of output power
- ▶ DVD drive with available regional codes: RC1, RC2, RC4, RC5
- ▶ Radio: FM, SW, AM/MW, LW, WB
- ▶ USB and AUX-IN slots on the front panel
- ▶ Microphone input
- ▶ Convenient remote control via separate IR receiver (optionally available)
- ▶ Operating voltage: 12 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Quiescent current consumption: <1 mA
- ▶ Format: 1 DIN
- ▶ Standards: CE, E1, FCC, MVSS302, RoHS

Minibus Radio MR 12

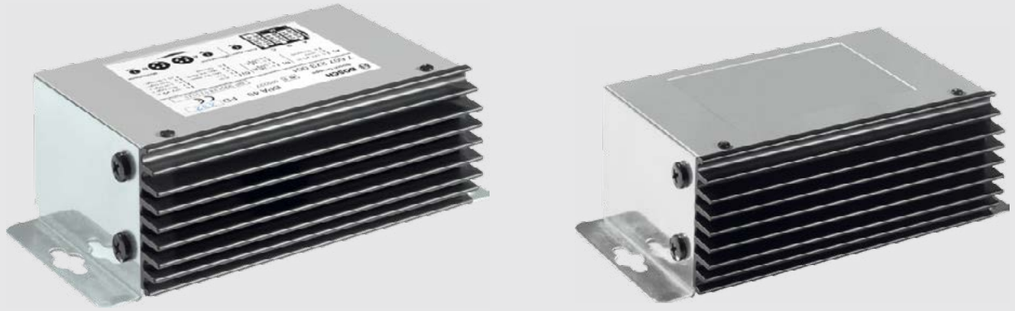
Specially designed for use in bus systems with a 12-V onboard network, the MR 12 is equipped with an integrated tuner and all the popular CE connections to easily connect external sources – a sturdy, reliable entertainment solution for many different applications.

Other features:

- ▶ Display color: red
- ▶ Integrated amplifier with 2 x 20 watts of output power
- ▶ Radio: FM, AM/MW, LW, WB
- ▶ USB and AUX-IN slots on the front panel
- ▶ Microphone input
- ▶ The MR 12 switches on automatically when the microphone is used
- ▶ Tuner frequency ranges (depending on region):
  - – FM: 87.5 to 108.0 MHz
  - – AM/MW: 530.0 to 1,710.0 kHz
  - – LW: 153.0 to 279.0 kHz
- ▶ Operating voltage: 12 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Quiescent current consumption: <0.5 mA
- ▶ Format: 1 DIN
- ▶ Standards: CE, E1, EMC, FCC, RoHS, WEEE

Coach Radio

Bosch radios offer solutions that have been specially developed to meet the requirements of city busses and long-distance coaches for use in 12-V and 24-V onboard networks. With connections for MP3 and USB on the front panel and an integrated DVD player (CAD12), a professional range of functions is ensured at all times.



Coach Radio CR 24

For use in 24-V onboard networks, Bosch offers the CR 24, a radio that has been specially developed to meet high-end requirements with many different connection and reproduction options for external sources. Thanks to the built-in CD-MP3 drive, many different kinds of conventional audio CDs can be played – the music entertainment can be ideally geared to the personal tastes of the listeners with the mix function and the individual sound settings.

Other features:

- ▶ Display color: red
- ▶ Integrated amplifier with 2 x 20 watts of output power
- ▶ Connection option for a subwoofer and an additional amplifier
- ▶ CD-MP3 drive for audio-CD, CD-R, CD-RW with WMA/MP3 files
- ▶ Radio: FM, AM/MW, LW, WB
- ▶ USB and AUX-IN slots on the front panel
- ▶ Microphone input
- ▶ The CR 24 can be switched on by using the microphone or the telephone

- ▶ Tuner frequency ranges (depending on region):
  - – FM: 87.5 to 108.0 MHz
  - – AM/MW: 530.0 to 1,710.0 kHz
  - – LW: 153.0 to 279.0 kHz

- ▶ Operating voltage: 24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Quiescent current consumption: <0.5 mA
- ▶ Format: 1 DIN
- ▶ Standards: CE, E1, EMC, FCC, RoHS, WEEE

Bosch Power Amplifier BPA 49

The 24-V BPA 49 microphone amplifier is equipped with two microphone inputs and reproduces rich, powerful sound for microphone announcements. The integrated priority switch ensures that driver announcements override any other announcements at any time. To increase output quality, the levels of the two microphones connected can be adjusted accordingly.

Other features:

- ▶ 2 x 20 watts of output power
- ▶ Unrestricted installation position

- ▶ Operating voltage: 24 V
- ▶ Operation temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 167 x 56 x 97.6 mm
- ▶ Weight: 950 g
- ▶ Certification standards: CE, E1, RoHS, WEEEE

Coach Minibus Amplifier CMA 12V

The CMA 12V microphone amplifier is ideally designed for 12-V radios and provides for clear, easily understandable announcements. The microphones connected to the two inputs are controlled by a priority switch for the driver microphone and can be adjusted in their output quality using the level setting. And of course, announcements can also be made when the radio is switched off.

Other features:

- ▶ 2 x 20 watts of output power
- ▶ Unrestricted installation position

- ▶ Operating voltage: 12 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 167 x 56 x 97.6 mm
- ▶ Weight: 750 g
- ▶ Standards: CE, E1,FCC, RoHS, WEEEE

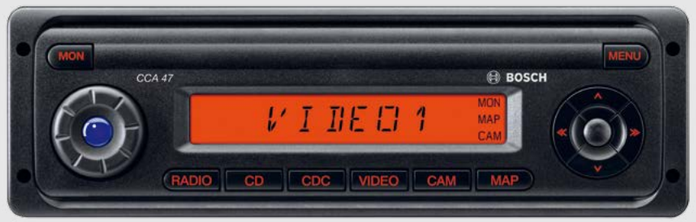
Classic Line 2

Coach Radio Disc CRD47 MP3

The CRD47 MP3 is an all-round audio talent that, in addition to its radio function, makes it possible to play back an extensive range of music collections via the integrated CD-MP3 drive and the AUX-IN connection. Thanks to the additional A/V connections on the rear panel, the CRD47 MP3 is also able to play music and videos from a DVD changer or other external sources. In the event of incoming calls, the other sound sources are automatically switched to pause to ensure interference-free telephone use over the connected microphone.

Other features:

- ▶ Display color: red
- ▶ Integrated amplifier with 2 x 20 watts of output power
- ▶ CD-MP3 drive for audio CD, CD-R, CD-RW with WMA/MP3 files
- ▶ Radio: FM, AM/MW, LW
- ▶ AUX-IN slot
  Optional connection of other external A/V sources
- ▶ Two microphone inputs with mix function
- ▶ Tuner frequency ranges (depending on region):
  – FM: 87.5 to 108.0 MHz
  – AM/MW: 530.0 to 1,710.0 kHz
  – LW: 153.0 to 279,0 kHz
- ▶ Operating voltage: 24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Quiescent current consumption: <10 mA
- ▶ Format: 1 DIN
- ▶ Weight: 1,300 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE



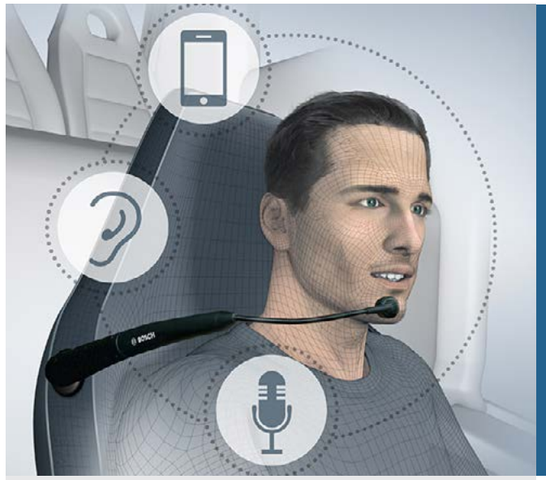
Coach Control Amplifier CCA47

The CCA47 was developed as the central head unit to control the multimedia functions in the passenger cabin. In combination with the CRD47 MP3, the devices can be operated as the Classic Line 2 coach multimedia system. The clear-cut operating interface makes it possible to control the audio and video functions quickly and easily.

Other features:

- ▶ Display color: red
- ▶ Integrated amplifier with 2 x 20 watts of output power
- ▶ Connections for 2x video, 2x microphone, AUX-IN
- ▶ Four cameras can be connected in combination with the camera switch
- ▶ Operating voltage: 24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Quiescent current consumption: <10 mA
- ▶ Format: 1 DIN
- ▶ Weight: 850 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Microphones



Ideally geared to meet the needs of the driver and the tour guide, Bosch microphones are convincing with their ergonomic design and easy operation along with a wide range of functions and excellent sound properties.

Coach Dynamic Microphone CDM 08/CDM 08 GSM

The CDM 08 and CDM 08 GSM gooseneck microphones make making announcements while driving as easy as child's play. Thanks to their well-thought-out design and adjustability, the microphones can be flexibly adapted to the driver's ergonomic needs. Due to the innovative design of the microphone head, acoustic feedback and interference are effectively eliminated.

Other features:

- ▶ Dynamic microphone
- ▶ Safe and convenient due to reinforced microphone base and flexible microphone neck
- ▶ Mounting to the left or right of the driver's seat (with optional accessories)

Optional for the CDM 08 GSM:

- ▶ Telephone hands-free operation with conventional GSM hands-free device

- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Frequency response: 100 to 12,000 Hz
- ▶ Gooseneck diameter: 6 mm
- ▶ Total length: 500 mm

Bosch Handheld Microphone BHM 09

The BHM 09 was specially designed for professional use in a Bosch coach multimedia system. With the BHM 09, tour guide announcements can be made easily at any time. The extensive range of accessories allows for the safe storage of the microphone in the cockpit and ample freedom of movement for the speaker.

Other features:

- ▶ Dynamic microphone
- ▶ Integrated wind protection

- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Frequency response: 100 to 10,000 Hz
- ▶ Total length: 138 mm

Bosch Gooseneck Microphone BGM 09

With the solidly built BGM 09 gooseneck microphone, the driver can make announcements at any time, even when the multimedia system is switched off.

Other features:

- ▶ Dynamic microphone
- ▶ Integrated wind protection

Optional for the BGM 09 S:

- ▶ Foot switch to activate the microphone

- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Frequency response: 100 to 10,000 Hz
- ▶ Gooseneck diameter: 6 mm
- ▶ Total length: 800 mm

MAS – Multi-channel Audio Systems

With the Multi-channel Audio System (MAS) from Bosch, passengers are individually entertained with up to eight stereo programs. A central distribution station, the MAS Head Station 02, uses a MAS distributor and MAS terminating resistors to supply up to 100 seat modules with media contents so that each passenger can enjoy his or her own personal entertainment.

MAS Head Station 02

The MAS head station 02 can accommodate up to eight audio sources and distribute them to a maximum of four trunk lines. Up to 25 seat modules can be connected to each of these trunk lines.

Other features:

- Unrestricted installation position
- Variable design options for the MAS according to vehicle requirements
- Uniform volume level due to integrated gain setting

- Operating voltage: 24 V
- Operating temperature: –10 °C to +55 °C
- Dimensions (W x H x D): 213.0 x 50.0 x 217.5 mm
- Weight: 1,400 g
- Standards: CE, FCC, RoHS

MAS Seat Module

Passengers can use the MAS seat module to select their own individual program of radio, CD or TV/video sound from eight different audio channels. All the available channels can be seen on the digital display and selected by the passenger at the touch of a button at their own individually selected volume.

Other features:

- Unrestricted installation position, click-in and screw-in
- Connection option for conventional headphones to the audio jack
- Improved water resistance for long life

- Operating voltage: Power supply from MAS Head Station 02
- Operating temperature: –20 °C to +70 °C
- Dimensions (W x H x D): 54.7 (77.0) x 35.7 x 20.0 mm
- Standards: CE, E1, FCC, RoHS, WEEE

Speakers

Bosch speakers provide for clear announcements, impressive video sound and inspiring music enjoyment. The different versions are available in several different sizes, colors and installation depths to accommodate individual needs.

Speakers	AL 100		AL 120		AL 130	
Max. load	25 W		30 W		50 W	
Sensitivity	87 dB		87 dB		88 dB	
Frequency response	80 – 20,000 Hz		70 – 20,000 Hz		70 – 20,000 Hz	
Installation depth	44 mm		28 mm		50 mm	
Diameter	100 mm		114 mm		115 mm	
Nominal resistance	4 Ω	4 Ω	4 Ω	8 Ω	4 Ω	4 Ω
Diameter with grille	135 mm	without grille	152 mm		165 mm	without grille
Grille color	black		gray		black	
Packaging unit	2 pcs	36 pcs	16 pcs	16 pcs	2 pcs	24 pcs

Coach Navigation

Navigation that appeals to all your senses

With the screen navigation from Bosch, which has been specially designed for commercial vehicles, the driver always knows exactly where he's going. The precise, pan-European route guidance is supported by a natural-sounding voice and arrows that show the way along with an easy-to-understand map display, which also includes such additional information as estimated arrival time and remaining distance. The high-resolution screen is able to reproduce detailed maps in different views. The operation of the entire navigation system is intuitive and easy thanks to the clearly structured menus and a convenient infrared remote control unit.

Other navigation maps are optionally available as DVDs for the NAFTA, SAM and other regions (on request).

Coach Navigation PX-V

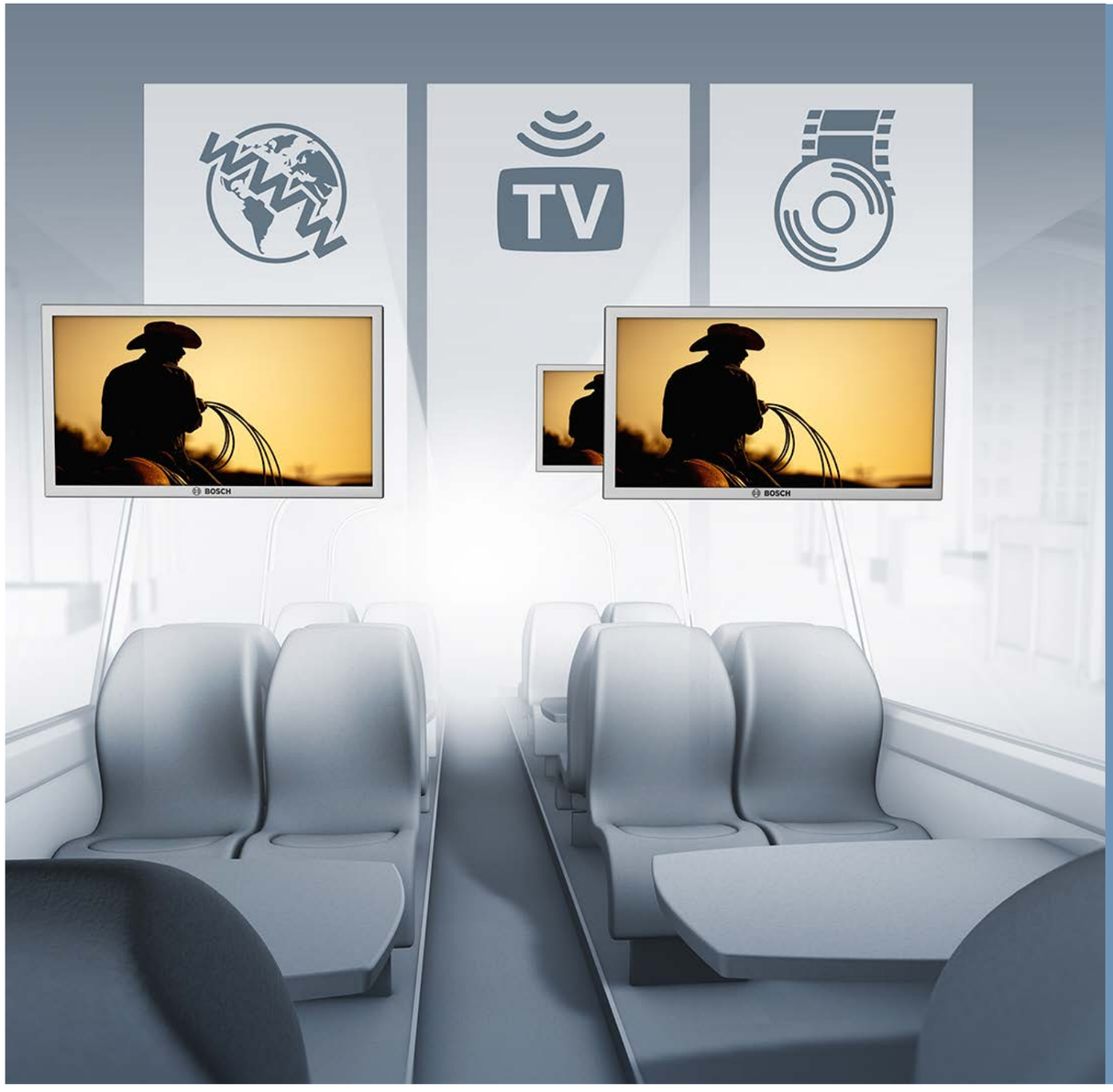
Based on the specific vehicle parameters entered, the Coach Navigation PX-V calculates the best possible route and guides the driver around any kind of driving or route restrictions, such as overhead clearance or allowable total weight. The PX-V is compatible with most previous models and can be retrofitted for all vehicle classes and models. All the important information, such as the distance to the next driving maneuver, total distance to the destination, travel and arrival time, GPS status and RDS/TMC status, is permanently displayed within the driver's range of vision.

Other features:

- Traffic congestion avoidance thanks to automatic dynamic route guidance using RDS/TMC
- Easy-to-understand symbols, informative maps and helpful driving recommendation announcements
- Route guidance in three different views
  Arrow/map simultaneously, large map or centered arrow
- Chronological destination memory for the last 12 destinations
- Service centers of many coach manufacturers stored as special destinations
- Removable 16:9 monitor
  Adjustable display height, contrast and brightness
- Operating voltage: 12 V
- Operating temperature: –15 °C to +60 °C
- Dimensions (W x H x D): 179.0 x 51.3 x 210.0 mm
- Weight: 1,100 g
- Standards: CE, E1, RoHS, WEEE

Coach Video

Cinema at its best all the way



Modern multimedia technology for commercial vehicles is not only designed to entertain the passengers but also allows for better communication with and among the passengers. Bosch Car Multimedia offers these solutions to meet virtually any needs. In this context, the spatial requirements for integration are no less important than the technical features. To meet these requirements, Bosch flat screens in different formats set new standards in terms of technology, installation flexibility and design: space-saving, easy to operate and enabling integration into any coach interior.

Mobile Entertainment

Coach MediaRouter

The Coach MediaRouter sets completely new standards for mobile internet use. Passengers can directly access the wide-ranging offer of entertainment media on the web or any contents made available locally and use the MediaRouter to exchange and share media with one another. Infotainment with its finger on the pulse of the times.

Other features:

- ▶ Broadband internet access via LTE mobile communications
  LTE, HSDPA, GPRS, LTE/HSPA + EDGE/GPRS/GSM
- ▶ Transmission of music, pictures and video files via Wi-Fi hotspots
- ▶ Automatic connection
- ▶ Up to 50 devices can be connected
- ▶ Connection of USB flash drives

- ▶ Wavebands:
  – 800/900/1,800/2,100/2,600 MHz
  – 850/900/2,100 MHz
  – 850/900/1,800/1,900 MHz
- ▶ Wi-Fi: 802.11a/b/g/n; 2.4 GHz

- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: –40 °C to +85 °C
- ▶ Dimensions (W x H x D): 150 x 110 x 30 mm
- ▶ Weight: <500 g
- ▶ Enclosure type: IP30
- ▶ Standards: CE, E1, R&TTE

DVB-T Tuner

Mobile digital TV entertainment with interference-free reception and excellent picture quality is a dream come true with the DVB-T tuner from Bosch. Specially developed to accommodate the needs for coach operation, the DVB-T tuner can be integrated in coach infotainment systems via a CAN connection or used as a stand-alone solution. It offers a wide range of different entertainment options with optimal TV reception, even on long-distance trips thanks to the integrated CI slot.

Other features:

- ▶ DVB-T1 standard
- ▶ CAN bus (bidirectional)
- ▶ Connection options for two additional video or audio sources
- ▶ External IR receiver (for use without CAN)
- ▶ Operation via Professional Line 3 remote control or remote control included in delivery
- ▶ FBAS video output

- ▶ Video formats:
  – 352 x 240 x 30 p
  – 352 x 288 x 25 p to 1,920 x 1,088 x 60 i
  – 1,280 x 720 x 60 p/50 p
- ▶ Audio formats:
  – MPEG-1/2; Layer 1 & 2: 16 to 48 kHz,
    Layer 1: 32 to 448 kbps, Layer 2: 32 to 384 kbps
  – MPEG-2/4; AAC-LC, 8 to 96 kHz, 8 to 576 kbps
- ▶ OSD menu: German, English, French, Spanish, Italian

- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: –20 °C to +60 °C
- ▶ Dimensions: 195 x 131 x 27 mm
- ▶ Weight: 800 g
- ▶ Standards: CE, E symbol

Monitors

19" LCD-LED Premium Design

The 19” LCD-LED Premium Design monitor with a VGA interface for ultra-sharp, high-contrast pictures in the large-scale 16:9 format transforms the coach into a cinema on wheels. The smart temperature management function and ideally adjusted viewing angles make the film-watching experience pure enjoyment for all the passengers.

Other features:

- VGA interface
- Picture diagonal: 475.0 mm
- Picture format: 16:10
- Viewing angle (H/V): ±80°/±80°
- Resolution: 1,440 x 900 pixels
- LCD brightness: ≥250 cd/m²
- Systems: PAL, SECAM, NTSC
- Setting parameters: Start logo, brightness, contrast, color saturation, color tone, activation of terminating resistor, 4x format setting

- Operating voltage: 12/24 V
- Operating temperature: 0 °C to +50 °C/ temperature management function
- Dimensions (W x H x D): 440.5 x 282.0 x 40.9 mm
- Weight: 4,700 g
- Standards: CE, E1, FCC, RoHS, WEEE

19" LCD-LED Premium Swivel Monitor

Thanks to its safety clutch, the 19" LCD-LED Premium Swivel monitor is first choice as a center aisle solution; its patented mechanism makes it easy to safely swivel the unit forwards and back. This monitor is also equipped with a VGA interface and is able to accommodate customer requests for an individual start logo.

Other features:

- VGA interface
- Picture diagonal: 475.0 mm
- Picture format: 16:10
- Viewing angle (H/V): ±80°/±80°
- Resolution: 1,440 x 900 pixels
- LCD brightness: ≥250 cd/m²
- Systems: PAL, SECAM, NTSC
- Setting parameters: Start logo, brightness, contrast, color saturation, color tone, activation of terminating resistor, 4x format setting

- Operating voltage: 12/24 V
- Operating temperature: 0 °C to +50 °C/ temperature management function
- Dimensions (W x H x D): 489.0 x 347.0 x 47.0 mm
- Weight: 7,000 g
- Standards: CE, E1, FCC, RoHS, WEEE

15" LCD EcoLine

The 15" LCD EcoLine monitor offers outstanding picture properties to keep your passengers satisfied. This functionally optimized 4:3 monitor is unrivalled in its class and of course also allows you to store your own individual start logo.

Other features:

- Picture diagonal: 380.0 mm
- Picture format: 4:3
- Viewing angle (H/V): ±60°/+45°, –55°
- Resolution: 1,024 x 768 pixels
- LCD brightness: ≥250 cd/m²
- Systems: PAL, SECAM, NTSC
- Setting parameters: Start logo, brightness, contrast, color saturation, color tone

- Operating voltage: 24 V
- Operating temperature: 0 °C to +50 °C
- Dimensions (W x H x D): 338.0 x 261.0 x 40.2 mm
- Weight: 2,600 g
- Standards: CE, E1, FCC, RoHS, WEEE

15,4" LCD Basic

Solidly built, but still state-of-the-art technology, the functionally optimized 15.4" LCD Basic monitor is the best value for money for the best film entertainment.

Other features:

- Picture diagonal: 397.0 mm
- Picture format: 16:9
- Viewing angle (H/V): ±80°/±80°
- Resolution: 1,366 x 768 pixels
- LCD brightness: ≥250 cd/m²
- Systems: PAL, SECAM, NTSC
- Setting parameters: brightness, contrast, color saturation, color tone, 2x format settings

- Operating voltage: 12/24 V
- Operating temperature: 0 °C to + 50 °C
- Dimensions (W x H x D): 346.0 x 230.0 x 41.0 mm
- Weight: 2,600 g
- Standards: E1, FCC, RoHS, WEEE

Monitors

10.2" LCD Design/Swivel Monitor

A size that promises individuality. The 10.2" LCD Design/Swivel monitor can be installed virtually anywhere in the vehicle and, thanks to its swivel mechanism, be quickly and safely swiveled back and forth as needed. As a result, the passengers can always put their monitor in the right light.

Other features:

- ▶ Picture diagonal: 259.0 mm
- ▶ Picture format: 15:9
- ▶ Viewing angle (H/V): ±65°/+45°, –65°
- ▶ Resolution: 800 x 480 pixels
- ▶ LCD brightness: ≥250 cd/m²
- ▶ Systems: PAL, SECAM, NTSC
- ▶ Setting parameters: Start logo, brightness, contrast, color saturation, color tone, activation of terminating resistor, 4x format setting
- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: 0 °C to +70 °C
- ▶ Dimensions (W x H x D): 266.6 x 217.8 x 29.5 mm
- ▶ Weight: 2,000 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEEE

Videobox Monitor

The Videobox monitor presents such video contents as pictures, operating interfaces, door monitoring views and navigation maps on a 7" LCD display in the 16:9 format. It is mounted in clear view in the dashboard of the coach and hooked up to the Videobox.

Other features:

- ▶ Picture diagonal: 475 mm
- ▶ Picture format: 16:10
- ▶ Viewing angle (H/V): +80°/+80°
- ▶ Resolution: 1,440 x 900 pixels
- ▶ LCD brightness: ≥250 cd/m²
- ▶ Systems: PAL, NTSC, SECAM
- ▶ Setting parameters: brightness, contrast, color saturation, color tone, format
- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: 0 °C to + 50 °C
- ▶ Dimensions (W x H x D): 440.5 x 282.0 x 40.9 mm
- ▶ Weight: 500 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Videobox

The Videobox is the central interface to all signal processing and thus the partner of the Videobox monitor. Thanks to the integrated converter, door monitoring, video and navigation pictures can be shown on the passenger monitors. Up to four cameras can be connected via the Videobox, supplied with 12 V operating voltage and reproduced on the screens as desired.

Other features:

- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 212.0 x 139.0 x 43.0 mm
- ▶ Weight: 400 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Video Sources

Thanks to the neatly coordinated video components from Bosch, the tedious chore of switching DVDs and other video sources is a thing of the past. Instead, passengers now enjoy unlimited film fun and easiest operation in the coach.

DVD Video Player DVP 08 C

The DVD Video Player DVP 08 C stands out by virtue of its intuitive operation and sturdy technology and promises a long life in the coach. Thanks to the integrated DVD drive with last-memory function, passengers can enjoy the latest films. Subtitles can be added at the click of a button.

Other features:

- ▶ Display color: red
- ▶ DVD/CD/MP3 drive with available regional codes: RC1, RC2, RC4, RC5
- ▶ Subtitle function
- ▶ Line-In for second video source (Sat TV, DVB-T)
- ▶ Easy control via separate IR receiver optionally available

- ▶ Operating voltage: 24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Format: 1 DIN
- ▶ Weight: 1,300 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

RGB-/FBAS Converter

Video contents from the Coach Navigation PX-V can be displayed on the monitors with the RGB-/FBAS converter.

- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 178.0 x 39.3 x 101.0 mm
- ▶ Weight: 500 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

VGA Splitter

The VGA splitter can be used to connect several monitors with a VGA interface to a single computer.

- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 139.0 x 29.0 x 67.0 mm
- ▶ Weight: 225 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Audio-/Video Switch

The audio/video switch makes it possible to connect two video sources to the coach multimedia system.

- ▶ Operating voltage: 12/24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 157.5 x 35.5 x 87.0 mm
- ▶ Weight: 350 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Video Amplifier

The video amplifier guarantees best picture quality on all connected screens when operating several monitors.

- ▶ Operating voltage: 24 V
- ▶ Operating temperature: –20 °C to +70 °C
- ▶ Dimensions (W x H x D): 140.5 x 29.3 x 82.5 mm
- ▶ Weight: 250 g
- ▶ Standards: CE, E1, FCC, RoHS, WEEE

Coach Accessories
A focus on convenience and safety

In the commercial vehicle sector, cameras make an important contribution to the convenience and safety of the driver, the passengers and other road users. Whether used as a back-up camera, for the interior or as a door-monitoring system, cameras from Bosch are always extremely reliable, robust and easy to integrate in the onboard electronics.

CC90 and CC138m Color Cameras

Thanks to their compact size and superior design, the color cameras from Bosch are well protected from water, dirt and damage (enclosure type IP69). The cameras can be mounted at a wide range of angles in many different locations and deliver ultra-sharp images at high picture resolutions even at night.

Other features:

- Picture format: 16:9
- Available in the following versions:
  - CC90, with a viewing angle of 90°
  - CC138m, with a viewing angle of 138°, image is mirrored

- Operating voltage: 12 V
- Operating temperature: –30 °C to +70 °C
- Dimensions (W x H x D): 23.4 x 23.4 x 22.6 mm
- Weight: <130 g
- Standards: CE, E1, RoHS, WEEE

Camera Switch

The camera switch can be directly integrated into the 12-V or 24-V onboard network and supplies up to four connected cameras and an optional monitor with a constant 12-V voltage. If needed, a switching module can be connected for manual operation.

Other features:

- Operating voltage: 12/24 V
- Operating temperature: 0 °C to +70 °C
- Dimensions (W x H x D): 180.0 x 26.0 x 108.0 mm
- Weight: <414 g
- Standards: CE, E1, RoHS, WEEE

FBAS-/RGB Converter

The FBAS-/RGB converter makes it possible to display navigation images from the Coach Navigation PX-V on the 7" cockpit display or the Videobox monitor.

Other features:

- Operating voltage: 12/24 V
- Operating temperature: –20 °C to +70 °C
- Dimensions (W x H x D): 170.0 x 39.0 x 109.1 mm
- Weight: 470 g
- Standards: CE, E1, FCC, RoHS, WEEE

Product Overview

Coach Audio

Professional Line 3	Part number	Page
CCS Professional (RC2)	7 620 200 053	6
CCS Professional (RC1)	7 620 200 054	6
CCS Professional (RC4)	7 620 200 055	6
CCS Professional (RC5)	7 620 200 056	6
CCS Professional Premium (RC2)	7 620 200 062	6
CCS Professional Premium (RC1)	7 620 200 061	6
CCS Professional Premium (RC4)	7 620 200 064	6
CCS Professional Premium (RC5)	7 620 200 065	6
CCD Professional Bluetooth	7 620 200 051	8
CCD Professional	7 620 200 052	
CPA 811	7 620 200 057	9
CPA 2011	7 620 200 058	9
Videobox	7 620 200 059	29
Videobox monitor	7 620 310 041	29
Coach Radios		
CAD 12 (RC2)	7 620 210 015	10
CAD 12 (RC1)	7 620 210 020	10
CAD 12 (RC4)	7 620 210 021	10
CAD 12 (RC5)	7 620 210 022	10
MR 12	7 620 210 017	11
CR 24	7 620 210 016	12
CRD 47 MP3	7 620 210 011	14
CCA 47	7 620 210 013	15
Amplifiers		
BPA 49	7 607 273 001	13
CMA 12 V	7 607 273 008	13
Microphones		
CDM 08 GSM	7 620 230 018	16
CDM 08	7 620 230 019	16
BGM 09 S	7 620 230 010	17
BGM 09	7 620 230 011	17
Mounting bracket for BGM 09 / BGM 09 S	7 607 022 001	
Foot switch for BGM 09 / BGM 09 S	7 607 005 710	
BHM 09	7 620 230 012	17
Mounting clip for BHM 09 S	7 620 270 000	
Mounting sleeve for BHM 09 S	7 620 270 001	
Microphone switch	7 620 230 022	

MAS – Multi-channel Audio System	Part number	Page
MAS head station 02	7 620 240 004	18
MAS seat module, clip-in	7 620 240 011	18
MAS seat module, screw-in	7 620 240 012	18
MAS distributor	7 607 006 318	
MAS terminating resistor	7 607 006 029	
Speakers		
AL 100 with grille (4 Ω)	7 620 250 014	19
AL 100 without grille (4 Ω)	7 620 250 016	19
AL 120 with grille (4 Ω)	7 620 250 011	19
AL 120 with grille (8 Ω)	7 620 250 012	19
AL 130 with grille (4 Ω)	7 620 250 015	19
AL 130 without grille (4 Ω)	7 620 250 018	19

Coach Video

Mobile Entertainment	Part number	Page
DVB-T tuner	7 620 320 025	24
4 antennas for the DVB-T tuner	7 620 340 025	
MediaRouter	7 620 320 029	24
Monitors		
19" LCD-LED Premium Design	7 620 310 034	26
19" LCD-LED Premium swivel monitor	7 620 310 057	26
Bracket for 19" LCD-LED Premium swivel monitor	7 620 340 001	
Magnet set 19" 27.5 mm	7 620 270 002	
Magnet set 19" 20.0 mm	7 620 270 003	
15" LCD EcoLine	7 620 310 018	27
15.4" LCD EcoLine Widescreen	7 620 310 016	
15.4" LCD Basic	7 620 310 040	27
10.2" LCD Design swivel monitor	7 620 310 020	28
Magnet set 10.2"	7 620 270 004	
Video Sources		
Coach DVD Player DVP 08 C (RC2)*	7 620 320 024	30
Coach DVD Player DVP 08 C (RC1)*	7 620 320 026	30
Coach DVD Player DVP 08 C (RC4)*	7 620 320 027	30
Coach DVD Player DVP 08 C (RC5)*	7 620 320 028	30
IR eye 5m cable for DVP 08 C	7 607 005 726	
RGB/FBAS converter (NTSC)	7 620 330 001	31
Audio/video switch	7 620 330 002	31
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*RC = Regional Code

Product Overview

Coach Navigation

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Coach Accessories

Coach Accessories	Part number	
Camera CC 90 (90° viewing angle)	7 620 500 006	32
Camera CC 138m (138° viewing angle, mirrored)	7 620 500 003	32
Camera switch for up to 4 camera connections	7 620 500 004	33
FBAS/RGB converter	7 620 500 025	33

Coach Accessory Cables

Professional Line 3	Part number	
Connection CCS-CPS – 1.7 m	7 620 280 021	
Connection CCS-CPA – 3 m	7 620 280 022	
Connection CCS-CPA – 5 m	7 620 280 023	
Connection CCS-CPA – 8 m	7 620 280 024	
Extension CPA-CLX	7 620 280 037	
Connection CCS-Videobox – 5 m	7 620 280 047	
Connection CCS-Videobox – 6 m	7 620 280 068	
Connection CPA-Videobox – 5 m	7 620 280 044	
Connection CPA-Videobox – 7 m	7 620 280 067	
Connection Videobox-Videobox Monitor	7 620 280 045	
DVB-T tuner cable – 3.5 m	7 620 280 062	
C2-Y adapter – 0.25 m	7 620 280 065	
Extension CCS-DVB-T-CAN – 6 m	7 620 280 066	
Additional Audio Equipment		
Extension CDC/IDC-CPA – 1.3 m	7 620 280 039	
Extension CDC/IDC-CPA – 6 m	7 620 280 040	
Connection CCS-USB	7 620 280 033	
Connection CCS-USB Snap on	7 620 280 042	

Microphones	Part number
Extension with switch for CDM 08 – 1.5 m	7 607 006 128
Extension for CDM 08 – 1.25 m	7 607 006 130
Extension for CDM 08 – 6 m	7 620 280 038
Adapter cable CCS-CDM 08	7 620 280 028
Adapter cable CCS-BHM 09S	7 620 280 027
Adapter cable CCS-BGM 09	7 620 280 029
Connection cable for foot switch	7 607 181 001
Spiral cable for hand-held microphone DIN plug	7 620 230 113
Extension DIN plug – 3 m	7 607 006 118
Spiral cable for hand-held microphone XLR plug	7 620 230 115
MAS – Multi-channel Audio System	
Cable set for Professional Line 3	7 620 280 030
MAS cable set for Classic Line	7 607 006 435
Preamp cable – 5 m	7 607 006 327
Adapter cable Videobox-MAS	7 620 280 046
Video Sources	
Connection DVP-CPA – 2.5 m	7 607 006 416
Remote cable DVP-CPA – 2.5 m	7 607 006 437
Extension for cable 7 607 006 416/437 – 6 m	7 607 006 438
Extension for cable 7 607 006 416/437 – 1.3 m	7 607 006 439
Video-audio cable – 10 m	7 607 402 000
Adapter cable CPA-Video	7 620 280 035
Connection CCS-Video	7 620 280 034
Connection CCS-DVP/DVB-T tuner	7 620 280 041
Navigation	
Connection CPA-PX-V	7 620 280 036
Connection CLX-CCU/CCX – 1.5 m	7 607 006 429
Connection CCU-Converter – 6 m	7 607 006 430
Connection Coach Navigation-CLX – 1 m	7 607 006 431
Connection Coach Navigation-CLX – 6 m	7 607 006 434
Extension Wide Screen Monitor – 1.5 m	7 607 006 411
Connection Coach Navigation Converter – 6.5 m	7 620 280 410
Connection Coach Navigation Converter – 4 m	7 607 006 410
Connection Coach Navigation Converter – 1.5 m	7 607 006 414
Color Camera	
Connection monitor-camera –20 m	7 783 111 282
Extension camera – 20 m	7 783 111 793
Adapter cable camera/converter – 0.17 m	4 998 101 884
Adapter cable camera/camera switch – 0.32 m	4 998 101 885

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